CURRICULUM VITA

Tung Liu

July, 2013

PROFESSIONAL BACKGROUND

Name: Tung Liu
Rank: Professor
Department of Economics
Miller College of Business
Ball State University
Address: Department of Economics
Miller College of Business
Ball State University
Muncie, IN 47306
Office: WB 113
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Area of Academic Discipline Specialization: Economics

Degrees

Doctorial Degree

Name of Degree: Ph.D. Economics
Year Conferred: 1990
Degree-Granting Institution: University of California, San Diego
Principal Academic Unit: Economics
Major Field of Study: Econometrics
Dissertation Title: Time Series Analysis of Synchronization and Chaos
Committee Members: Clive W. J. Granger (Chairman), Walter P. Heller, and Halbert White

Master's Degree

Name of Degree: Master of Arts
Year Conferred: 1981
Degree-Granting Institution: Soochow University, Taipei, Taiwan
Principal Academic Unit: Economics
Major Field of Study: Economics
Dissertation Title: The Relationship between Agricultural and Industrial Sectors in Taiwan after World War II.

Bachelor's Degree

Name of Degree: Bachelor of Arts
Year Conferred: 1978
Degree-Granting Institution: Soochow University, Taipei, Taiwan
Principal Academic Unit: Economics
Major Field of Study: Economics

Research Fields

Econometrics, Time Series Analysis, Applied Finance, Statistics, China Economy

Academic Experience

2012-Present	Professor, Department of Economics, , Miller College of Business, Ball State University, Muncie, Indiana
2004-2013	Chairman, Department of Economics, Miller College of Business, Ball State University, Muncie, Indiana
1998-2012	Associate Professor, Department of Economics, Miller College of Business, Ball State University, Muncie, Indiana
1999-2002	Assistant Chair, Department of Economics, Miller College of Business, Ball State University, Muncie, Indiana
1990-1998	Assistant Professor, Department of Economics, Miller College of Business, Ball State University, Muncie, Indiana
1989 Summer	Research Assistant to Dr. Clive W.J. Granger, Department of Economics, University of California, San Diego
1989 Spring	Research Assistant to Dr. Walter P. Heller, Department of Economics, University of California, San Diego
1985-1990	Teaching Assistant, Department of Economics, University of California, San Diego
1980-1981	Teaching Assistant, Department of Economics, Soochow University, Taipei, Taiwan

INSTRUCTIONAL EXPERIENCE

Courses Taught (1990 – 2012)

Econ 201, Elementary Microeconomics
Econ 202, Elementary Macroeconomics
Econ 221, Business Statistics
Econ 279, Economic and Political Problems of Emerging Nations
Econ 424/524, Introduction to Econometrics
Econ 624, Advanced Econometrics
MBA 605, Statistics for Business Decisions
MBA 607, Managerial Macroeconomics
MBA 611, Statistics and Quantitative Methods

Educational Innovation and Technology

Web Interface for CRSP Stock Files, 1998
Web Interface for CRSP Indices File, 1998
Web Interface for DRI Basic Economics Database, 1997
Course Materials of Econ 221, 424/524, MBA 605, MBA 611 on the Internet

Other Indications of Teaching Effectiveness

Course Packet for Econ 221, Business Statistics
Course Packet for Econ 279, Economic and Political Problems of Emerging Nations
Course Packet for Econ 424/524, Introductory Econometrics
Course Packet for MBA 605, Statistics for Business Decisions
Course Packet for MBA 607, Managerial Macroeconomic
Course Packet for MBA 611, Statistics and Quantitative Methods

Instructional Grants

Undergraduate Technology Fellow, 2000
Academic Courseware Development Program: 1994, 1998

Instructional Awards

Dean Teaching Award: 1999, 2000
College of Business, Ball State University

Educator of the Year: 1994
Delta Sigma Pi Fraternity
College of Business, Ball State University

Excellence in Teaching Award: 1988
Department of Economics
University of California, San Diego

SCHOLARLY ACTIVITIES

Refereed Journal Articles Publications

Fields, T., Earhart, C.A., Liu, T., & Campbell, H., A Hedonic Model for Off-Campus Student Housing: The Value of Proximity to Campus. *Journal of the Housing Education and Research Association* (Forthcoming)

Liu, T. & Li, K.-W. (2012). Analyzing China's Productivity Growth: Evidence from manufacturing Industries. *Economic Systems* 36(4), 531-551.

Li, K.-W., & Liu, T. (2011). Economic and Productivity Growth Decomposition: An Application to Post-reform China. *Economic Modelling* 28(1-2), 366-373.

Liu, T., Santoni, G. J., & Stone, C. C. (2009). Federal Securities Regulations and Stock Market Returns. *Journal of Financial and Economic Practice* Fall 2009, 15-34.

Bask, M., Liu, T., & Widerberg, A. (2007). The Stability of Electricity Prices: Estimation and Inference of the Lyapunov Exponents. *Physica A* 376, 565-572.

Liu, T., & Li, K-W. (2006). Disparity in Factor Contributions between Coastal and Inner Provinces in Post-reform China. *China Economic Review* 17(4), 449-470.

Liu, T., & Sepctor, L. C. (2005). Dynamic Employment Adjustments Over Business Cycles. *Empirical Economics* 30(1), 151-169.

Chu, C.-S., Liu, T., & Rathinasamy, R. S. (2004). Robust Test of the January Effect in Stock Markets Using Markov-Switching Model. *Journal of Financial Management and Analysis* 17(1), 22-33.

Li, K.-W., & Liu, T. (2004). Performance of Financial Resources in China's Provinces. *Journal of the Asia Pacific Economy* 9(1), 32-48.

Li, K.-W. & Liu, T. (2001). Financial Liberalization and Growth in China's Economic Reform. *World Economy* 24(5), 673-687.

Liu, T., & Li, K.-W. (2001). Impact of Liberalization of financial resources in China's economic growth: Evidence from Provinces. *Journal of Asian Economics* 12(2), 245-262.

Liu, T., & Stone, C. C. (1999). Critique of One Tailed Hypothesis Test Procedures in Business and Economics Statistics Textbooks. *Journal of Economic Education* 30(1), 59-63.

Gencay, R. & Liu, T. (1997). Nonlinear Modeling and Prediction with Feedforward and Recurrent Networks, *Physica D* 108, 119-134.

Liu, T., Chu, C.-S., & Santoni, G. (1996). Stock Market Volatility and Regime Shifts in Returns. *Information Science* 94(14), 179-190.

Kuan, C.-M., & Liu, T. (1995). Forecasting Exchange Rates Using Feedforward and Recurrent Neural Networks. *Journal of Applied of Econometrics* 10(4), 347-364.

Liu, T., Santoni, G., & Stone, C. C. (1995). In Search of Stock Market Bubbles: A Comment on Rappoport and White. *The Journal of Economic History* 55(3), 647-654.

Santoni, G. & Liu, T. (1993). Circuit Breakers and Stock Market Volatility, *Journal of Futures Markets* 13(3), 261-277.

Liu, T., Granger, C. W. J., & Heller, W. P. (1992). Using the Correlation Exponent to Decide whether an Economic Series is Chaotic. *Journal of Applied Econometrics* 7 (December): S25-S39; Reprinted in M. Hashem Pesaran and Simon M. Potter edition. *Nonlinear Dynamics, Chaos and Econometrics*. John-Wiley and Sons. 17-31.

Conference Proceedings in Scholarly Meetings

Li, K.-W., Liu, T., Lam, H. K., & Wang., L., (2010). Productivity Growth among Chinese Mainland Regions and Hong Kong, in Yuan, Zhiguang (ed), *The World Economy in Financial Crisis*, Shanghai Forum Series 2009, Shanghai People's Publisher, May: 160-187.

Kuan, C.-M., & Liu, T. (1993). Recurrent Back-Propagation and Newton Algorithms for Training Recurrent Neural Networks. *Proceedings of the International Symposium on Substance Identification Technologies*.

Work in Progress

On the Measure of Cost Inefficiency

Returns to College Education (with Coelho, P.R.P.)

Asymmetric Effects of Fiscal Policy (with Spector, L.C.)

Working Paper

Liu, T. & Li, K.-W., (2008). Revisiting Solow's Decomposition of Economic and Productivity Growth. Ball State University, Working Paper ECWP200601.

Liu, T. & Stone, C.C., (2007). Law and Statistical Disorder: Statistical Hypothesis Test Procedures and the Criminal Trial Analogy. Ball State University, Working Paper ECWP200601R1.

Research Grants

Co-Investigator, (PI: Li, K.-W.) Productivity and efficiency analysis in post-reform China: national, regional and industrial dimensions, City University of Hong Kong, Project no: 7002175 (9/2007-4/2009)

Co-Investigator, (PI: Li, K.-W.) Efficiency and productivity in China's post-reform growth, City University of Hong Kong, Project no: 7001907 (4/2006-3/2008).

Co-Investigator, (PI: Li, K.-W.) Measure of endogenous growth in China's post-reform economy, City University of Hong Kong, Project no: 7100244 (5/2002-4/2003).

George A. and Frances Ball Research Grants, 1991, 1992, 1997

University Summer Research Grant: 1993

Presentations at Conferences

"Disparity in Factor Contributions between Coastal and Inner Provinces in Post-reform China." Western Social Science Association Annual Meeting, Western Social Science Association. Phoenix. April 21, 2006.

"Asymmetric Effects of Fiscal Policy." Midwest Economics Association Annual Meeting, Midwest Economics Association. Chicago. March 24, 2006.

"Investment and capital disparity between coastal and inner provinces in Mainland China" International Conference on Advanced Science and Technology. Chicago. September 10, 2005.

"Law and Statistical Order." East Economics Association Annual Meeting. New York. March 6, 2005.

"Federal Securities Regulations and Stock Market Returns." Midwest Economics Association Annual Conference. Chicago. 2004.

"Impact of Liberalization of Financial Resources in China's Economic Growth: Evidence from Provinces." American Economic Association Annual Conference. New Orleans. January 5-7, 2001.

"The Nonlinear Intraday Pattern of Futures Market Exchange Rates: An Application of Neural Network Models." Conference on Computational Economics and Finance, Sixth International Conference. Boston College. Boston. June, 1999.

"Stock Market Volatility and Regime Shifts in Returns." Chia-Shang Chu, Gary Santoni., and Tung Liu. Second Annual Joint Conference on Information Sciences. Wrightsville Beach, North Carolina. August 1995.

"A Critique of One Tailed Hypothesis Test Procedures in Business and Economics Statistics Textbooks." Tung Liu and Courtenay C. Stone, Midwest Economic Association Conference. Cincinnati, Ohio. April 1994.

"The Markov-Switching Model vs. Dummy Variable Regression in Analyzing the January Effect." Chia-Shang Chu and Tung Liu. Western Economic Association International Conference. Vancouver, Canada. July 1994.

"Nonlinear Modeling and Prediction with Feedforward and Recurrent Networks." SPIE's 1994 Conference, International Symposium on Optics, Imaging, and Instrumentation. San Diego, California. July 1994.

"Forecasting Exchange Rates Using Feedforward and Recurrent Neural Networks." Chung-Ming Kuan. and Tung Liu, Econometric Society Winter Meeting, New Orleans, Louisiana. January 1992.

Other Presentations

"Federal Securities Regulations and Stock Market Returns." University of Mississippi, Economics Department Seminar, University of Mississippi, Department of Economics. October 13, 2006.

"Federal Securities Regulations and Stock Market Returns." Butler University. Tung Liu, Gary Santoni., and Courtenay C. Stone. Indiana, 2004.

"Using BSU Online Financial and Economics Databases." Midwest Economics Association. Chicago. 2004.

"Dynamic Employment Adjustments Over Business Cycles." City University of Hong Kong. Hong Kong. 2001.

"In Search of Stock Market Bubbles: A Comment on Rappoport and White." Tung Liu, Gary Santoni., and Courtenay C. Stone., Butler University, Indiana, 1994.

"Nonlinear Modeling and Prediction with Feedforward and Recurrent Networks." Indiana University at Bloomington. Indiana. 1993.

Reviews for Publishers

The Quarterly Review of Economics
Financial Research Letters
China Economic Review
Journal of Economic Education
Economic Modelling
Journal of Risk and Financial Management
Computers and Operations Research.
The Journal of Futures Markets
Journal of Money, Credit, and Banking
Computers and Operations Research
Mid-American Journal of Business
Taiwan Economic Review
Journal of Business and Economic Statistics
Studies in Nonlinear Dynamics and Econometrics

Reviews for Textbooks

Pekoz, The Manager's Guide to Statistics, W.H. Freeman Publishers.
Brue, McConnell, Flynn, and Grant "Essentials of Economics" 2nd edition.
Sharpe/DeVeaux/Velleman, Business Statistics
Saraniti/Sanholm, Vital Statistics: Probability and Statistical Inference for Economic and Business Decisions
Francis X. Diebold, Elements of Forecasting
Stock and Watson, Introduction to Econometrics
Dielman, Data Analysis for Management Decision

Other Scholarly Activities

Visiting Research Scholar to City University of Hong Kong, May 14-18, 2001

Exchange Scholar to Shanghai Normal University, May 19-22, 2001

Computer Program: NETLE- Feedforward Neural Networks and Lyapunov Exponents Estimation by Chung-Ming Kuan., Tung Liu, and Ramazan Gencay. Version 3.01, February 1995; Version 4.1, 2007

SERVICE ACTIVITIES

Student Advising

Student Advisor for economics major (1999 – present)
Internship Coordinator (2010 – present)
Committee member for Ph.D. Students (2000 – 2003)
Committee member for a master student (2011)

Professional and Academic Organization Activities

Executive Committee, Miller College of Business (2004 – 2013)
Salary Committee, Miller College of Business (2004 – 2013)
Promotion and Tenure Committee, Department of Economics (2004 – 2013)
Hiring Committee, Department of Economics (2004 – 2013)
Curricular Technology Integration Committee, Miller College of Business (1992 – 2005)
Global Business Program, Miller College of Business (2004 – 2008)
Graduate Curricula and Assessment Committee, Miller College of Business (2002 – 2003)

Other Services

Organizing the department working paper series (2005 – present)
Organizing the department seminar series (2004 – 2013)
Maintaining Department of Economics homepage (1999 – 2002, 2008 – present)